Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1.   (Currently amended)   A method for adapting to changes affecting a wireless signal, the method comprising:

determining whether a measurement of a metric of a modulation attribute is an amplitude of the wireless signal, a frequency of the wireless signal, or a phase of the wireless signal;

instantaneously detecting motion of a communication device associated with a signal path over which ~~communicating~~ the wireless signal is transmitted ~~or instantaneously detecting motion of an external object in a signal path~~ based ~~on a~~ on the determined measurement ~~of a metric of a modulated signal attribute comprised of at least one of amplitude of the wireless signal, frequency of the wireless signal, or phase of the wireless signal~~;

selecting a parameter adjustment, based on the instantaneously detected motion, ~~of at least one of: an antenna mode, a power level, a forward error correction (FEC) coding rate, a number of modulation symbols, and a data transfer rate~~; and

performing the parameter adjustment.

2.   (Previously presented)   The method as in claim 1, wherein the detecting is performed by a mobile station.

Claims 3-4   (Canceled)

5.   (Previously presented)   The method as in claim 1, wherein the detecting is based on a signal in an automatic gain control (AGC) loop.

6.   (Previously presented)   The method as in claim 5, wherein the detecting is a function of a statistic of the signal in the AGC loop.

7.   (Previously presented)   The method as in claim 6, wherein the statistic that is used is variance.

8.   (Previously presented)   The method as in claim 1, wherein the detecting is based on a phase error signal produced by at least one of a delay lock loop, matched filter, or correlator.

9.   (Previously presented)   The method as in claim 8, wherein the detecting is a function of a statistic of the phase error signal.

10.   (Previously presented)   The method as in claim 9, wherein the statistic that is used is variance.

11.   (Previously presented)   The method as in claim 1, wherein the metric is based on a frequency error signal in a frequency control loop.

12.   (Previously presented)   The method as in claim 11, wherein the detecting is a function of a statistic of the frequency error signal.

13.   (Previously presented)   The method as in claim 12, wherein the statistic that is used is variance.

14.   (Previously presented)   The method as in claim 1, wherein the detecting includes: comparing the metric to a threshold level.

Claim 15   (Canceled)

a compensator configured to <u>perform</u> ~~make~~ a signaling parameter adjustment, responsive to the motion instantaneously detected by the processing unit~~, of at least one of an antenna mode, a forward error correction (FEC) coding rate, a number of modulation symbols, and a data transfer rate~~.

22.   (Previously presented)   The apparatus as in claim 21, configured as a mobile station.

Claims 23–24   (Canceled)

25.   (Previously presented)   The apparatus as in claim 21, wherein the processing unit is configured to detect motion based on a signal in an automatic gain control (AGC) loop.

26.   (Previously presented)   The apparatus as in claim 25, wherein the processing unit is configured to detect motion as a function of a statistic of the signal in the AGC loop.

27.   (Previously presented)   The apparatus as in claim 26, wherein the processing unit is configured to use variance as the statistic.

28.   (Previously presented)   The apparatus as in claim 21, wherein the processing unit is configured to detect motion based on a phase error signal produced by at least one of a delay lock loop, a matched filter, or a correlator.

29.   (Previously presented)   The apparatus as in claim 28, wherein the processing unit is configured to detect motion as a function of a statistic of the phase error signal.

30.   (Previously presented)   The apparatus as in claim 29, wherein the processing unit is configured to use variance as the statistic.

31.   (Previously presented)   The apparatus as in claim 21, wherein the processing unit is configured to detect motion based on a frequency error signal in a frequency control loop.

32.   (Previously presented)   The apparatus as in claim 31, wherein the processing unit is configured to detect motion as a function of a statistic of the frequency error signal.

33.   (Previously presented)   The apparatus as in claim 32, wherein the processing unit is configured to use variance as the statistic.

34.   (Previously presented)   The apparatus as in claim 21, wherein the processing unit is configured to detect motion using a comparison threshold level.

35.   (Currently amended)   The apparatus as in claim 21, further comprising:
       an antenna having a changeable antenna mode, wherein the compensator is configured to change ~~the~~ an antenna mode.

36.   (Currently amended)   The apparatus as in claim 35, wherein the compensator is configured to change ~~the~~ an antenna mode between directive and omni-directional modes.

Claims 37-38   (Canceled)

39.   (Currently amended)   The apparatus as in claim 21, wherein the compensator is configured to reduce at least one of ~~the FEC~~ forward error correction (FEC) coding rate, or the number of modulation symbols, to a minimum level while maintaining the signal path.

Claims 40-41   (Canceled)

42.   (Currently amended)   A non-transitory computer-readable storage medium containing a set of instructions for a general purpose computer, the set of instructions comprising:

a signal adaptation code segment configured to cause a processor to control a signaling path to adapt to changes affecting the signaling ~~path,~~ path after determining whether a measurement of a metric of a modulation attribute is an amplitude of the wireless signal, a frequency of the wireless signal, or a phase of the wireless signal;

a detection code segment configured to instantaneously detect motion of a communication device associated with a signal path over which ~~communicating~~ the wireless signal is transmitted ~~or instantaneously detect motion of an external object in a signal path~~ based ~~on a~~ on the determined measurement of ~~a metric of a modulated signal attribute comprised of at least one of amplitude of the wireless signal, frequency of the wireless signal, or phase of the wireless signal~~; and

an adjusting code segment configured to perform ~~make~~ a signaling parameter adjustment, responsive to the motion detected by the detecting code segment~~, of at lease one of an antenna mode, a forward error correction (FEC) coding rate, a number of modulation symbols, and a data transfer rate.~~

Claims 43-61 (Canceled)